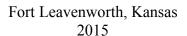
UNITED STATES ARMY COMMAND AND GENERAL STAFF OFFICERS COURSE PREPARATORY CURRICULUM EVALUATION

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE General Studies

by

NICHOLAS J. LOZAR, MAJOR, U.S. MARINE CORPS B.A., Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 2001



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14. ABSTRACT

The U.S. Army Command and General Staff Officers Course (CGSOC) conducts several preparatory courses prior to the academic year. This thesis evaluates the effectiveness of the CGSOC curriculum in preparing the students for conduct of the academic year. This study reviewed professional articles from several industries as well as CGSOC history in order to gain appreciation for the concepts dealing with preparatory courses. This study also evaluated student and faculty responses to a survey regarding the preparatory curriculum's effectiveness in preparing students for the academic year, and the relative cost of conducting the preparatory curriculum. The analysis of the data showed that the preparatory curriculum did not meet the college standard based on the responses of the students and faculty.

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

UNITED STATES ARMY COMMAND AND GENERAL STAFF OFFICERS COURSE PREPARATORY CURRICULUM EVALUATION, by Major Nicholas J. Lozar, 80 pages.

The U.S. Army Command and General Staff Officers Course (CGSOC) conducts several preparatory courses prior to the academic year. This thesis evaluates the effectiveness of the CGSOC curriculum in preparing the students for conduct of the academic year. This study reviewed professional articles from several industries as well as CGSOC history in order to gain appreciation for the concepts dealing with preparatory courses. This study also evaluated student and faculty responses to a survey regarding the preparatory curriculum's effectiveness in preparing students for the academic year, and the relative cost of conducting the preparatory curriculum. The analysis of the data showed that the preparatory curriculum did not meet the college standard based on the responses of the students and faculty.

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ACRONYMS

AOC Advanced Operations Course

ATRRS Army Training Requirements and Resources System

AY Academic Year

CGSC Command and General Staff College

CGSOC Command and General Staff Officer's Course

DCL Department of Command Leadership

DJIMO Department of Joint, Interagency, and Multinational Operations

DLRO Department of Logistics and Resources Operations

DMH Department of Military History

DTAC Department of Tactics

ILE Intermediate-Level Education

JPME Joint Professional Military Education

QAO Quality Assurance Office

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CHAPTER 1

INTRODUCTION AND BACKGROUND

In 1985, the U.S. Army Command and General Staff College (CGSC) officially initiated a preparatory curriculum in order "to familiarize the student with the small group instruction methodology and resulting classroom environment; and to gain an appreciation of the political, social, and economic factors that have a bearing on U.S. people, their traditions, and way of life." This course focused on the International military officers only. Five years later the college officially initiated a preparatory course for sister services and Interagency civilians. The college desired to establish a baseline for the students in preparation for the academic year.

The student body of CGSC is a diverse population, from seasoned combat veterans to Interagency civilians who have never seen combat. The preparatory curriculum is designed to establish a baseline knowledge of Army terms and concepts so all students enter the academic year with a similar level of knowledge about the upcoming curriculum. Through cursory conversations with fellow students, it appears the students in Academic Year (AY) 2015 believe a common baseline was never actually established. Because of this belief, further evaluation of the preparatory program is warranted. The time expended by both students and faculty during the P900 block is very valuable monetarily and from an opportunity cost, and should be used to gain the most benefit possible for the students. The problem addressed in this study is whether U.S.

¹ Army Training Requirements and Resources System (ATRRS), "Information for Course 2G-F67X," U.S. Army, last updated August 8, 2013, accessed April 13, 2015, https://www.atrrs.army.mil/atrrscc/courseInfo.aspx?fy=2015&sch=701&crs=2G-F67X&crstitle=INTERNATIONAL+OFFICER+PREPARATORY&phase=.

Army (and sister service) majors require any preparation to attend CGSCC. The purpose of this study is to review the merits of the preparatory course and determine if the P900 curriculum prepares students to adequately engage in the main academic course and complete the academic year without attending any preparatory instruction.

Research Questions

Primary Research Question

The primary research question is: How does the preparatory curriculum enable the student's participation in the academic year? The dependent variable is the perception of preparedness for attendance in common core and Advanced Operations Course (AOC). The independent variables are attendance of P920, attendance of P930 or branch specific course, and demographic differences (service, agency, affiliation, and previous familiarity with the material).

Secondary Research Questions

- 1. How does the department of assignment of the instructor influence the perception of preparedness of the student?
- 2. How does the number of years of teaching influence the instructor's perception of student preparedness?
- 3. What is the relationship between the department assignment and number of years in faculty service and the perception of relevancy of the P900 curriculum for the students?
- 4. What is the perception of the students about how well the P920 online preparatory course and P930 course (or other branch specific course) prepared them for

the academic year? How does this attitude change based on service or government affiliation?

5. How does previous familiarity with the material taught in the P900 courses affect the feelings of preparedness of the students?

There are advocates for conducting preparatory courses to provide the most opportunity for Command and General Staff Officers Course (CGSOC) students to succeed in the course. This is evident because the courses, unofficially, date back to 1980 and continue to be funded by the Army.² If there were no advocates for the course and the value of preparatory coursework the funding would not be provided. Because of this fact, this study will examine cost by asking, what does it cost to conduct the P900 courses?

Per the Goldwater-Nichols Act of 1986, every military officer is required to complete a certain level of professional military education at certain points in their career.³ Furthermore, the Goldwater-Nichols Act specifically requires each service to periodically review its curriculum in order to ensure that mid-grade officers are educated on joint matters and prepared for joint-duty assignments.⁴ The current guidance from the Chairman of the Joint Chiefs of Staff describes the requirements for joint professional

² Paul V. Hester, "Does CGSC Prepare the Air Force Officer for His Follow On Assignment?" (Master's thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS, June 1980).

³ Historical Office of the Secretary of Defense, Goldwater-Nichols Department of Defense Reorganization Act of 1986, Public Law 99-433, 99th Congress, October 1986, accessed June 2, 2015, http://history.defense.gov/Portals/70/Documents/dod_reforms/Goldwater-NicholsDoDReordAct1986.pdf.

⁴ Ibid.

military education, however, there is no mention of branch or service specific preparatory courses to attend career, intermediate, or top-level school.⁵ The current curriculum at CGSOC includes a rigorous course of preparatory instruction. This study will test the following hypotheses:

Hypothesis 1

H1: There is no relationship between the preparatory curriculum and student preparedness for the academic year.

H₁₀: There is a relationship between the preparatory curriculum and student preparedness for the academic year.

Hypothesis 2

H2: There is no relationship between the faculty department/years on faculty and faculty perception of relevancy of the P900 curriculum.

H2₀: There is a relationship between the faculty department/years on faculty and faculty perception of relevancy of the P900 curriculum.

Hypothesis 3

H3: There is no relationship between the preparatory curriculum and faculty perception of student preparedness for the academic year.

H3₀: There is a relationship between the preparatory curriculum and student preparedness for the academic year.

⁵ Chairman, Joint Chiefs of Staff, Chairman Joint Chiefs of Staff Instruction 1800.01D, *Officer Professional Military Education Policy* (Washington, DC: Joint Chiefs of Staff, September 5, 2012).

Hypothesis 4

H4: There is no relationship between student preparedness for the academic year and familiarity with the material taught in the preparatory curriculum.

H4₀: There is a relationship between student preparedness for the academic year and familiarity with the material taught in the preparatory curriculum.

The objective of the study will be to determine if the students benefit from the preparatory education given prior to the academic year, and if the students perform better during the school year because of the preparatory curriculum.

Assumptions

The analysis of the data reviewed in this research is based on the assumption that all students at CGSC completed the required P900 block of instruction. It is also assumed that follow-on curriculum (such as common core) was given in a relatively similar fashion across the college. Another assumption that is valid and necessary for this study is that each instructor prepares for and teaches his or her classes according to his or her personality and style. A final necessary assumption is that the curriculum and course evaluations are standardized within each department.

Definition of Terms

For the purpose of this study, the term student applies to all students of CGSC.

The overwhelming majority of students at the college are majors with approximately twelve years of service. In cases where the term student applies to specific demographics of the student body, those differences will be noted. The term instructor applies to permanent faculty of the college at the ratio of one instructor per group of sixteen

students. Guest speakers and assistant instructors will be identified separately if necessary. In addition, the term cost is associated with time. The cost of time is based on the pay of both instructors and students relative to time spent on a given course of instruction. The specific costs relative to the course and this study are addressed in the analysis section in chapter 4.

Limitations

The amount of information and evaluation of the preparatory courses in CGSC is limited. The CGSC Quality Assurance Office (QAO) maintains all records of curriculum surveys. QAO has only conducted one survey of the P900 block of instruction.⁶ There is a limited amount of data resident at CGSC regarding the development of the preparatory curriculum and the philosophy behind why the preparatory courses were developed. There are also several assumptions made in the quantitative cost analysis of the student body and faculty. These assumptions were made to simplify the research under time constraints. The process for determining cost assumes the average student is a major with twelve years of service, and the instructor is a lieutenant colonel with twenty years of service. This clearly leaves gaps in the specific costs for the institution to conduct the P900 block. However, for the purpose of this study this method of determining costs provides a baseline sufficient for analyzing the data.

Another limitation of this study is that it will use quantitative analysis using restricted items. The limitation is that there are only a finite number of options for the surveyed population from which to choose. In addition, there is no control group in this

 $^{^{\}rm 6}$ This was determined through a search of the QAO archives with Dr. Maria Clark.

study because all students were required to complete the P920 online course before beginning the class. Because there is no control group there is no way to determine if the preparatory course improved the grades of the students. A final limitation of the study is that only the 2015 class was surveyed. No other classes before AY 2015 could be surveyed for the research.

Delimitations

This study has several delimitations. This study will not be examining opinions of previous classes, nor will it follow this class after graduation. This study will not evaluate the different company-grade professional education courses for Army majors, or any other service. This study will not evaluate the effectiveness of other service school curriculum. Finally, the study will not evaluate the P900 courses based on military occupational specialty.

Significance of Study

This study will add to the body of knowledge in the U.S. Army about preparatory courses. The study could lead to a change in the curriculum of CGSOC, for both the preparatory course and the common core curriculum. This study will also provide information about both student and faculty attitudes towards the preparatory curriculum. Positive or neutral attitudes can assist the curriculum developers and leaders within CGSC in refining and maintaining the current course of instruction. Negative attitudes from the students and faculty can be used to determine refinements or elimination of the preparatory curriculum. The cost-analysis model could also be useful when conducting budget reviews when specificity in dollar amounts is not necessarily required.

Summary and Conclusions

The college reviews most of the curriculum at CGSC on a regular basis to ensure the students are receiving the best education to prepare them for their future roles as field grade officers. The P900 curriculum, however, has never been evaluated to see if students are better prepared for Common Core curriculum or AOC, as well as graded evaluations. The college, the faculty, and the students have a responsibility to ensure that any shortfalls in their education are identified to the leaders of the school to improve the curriculum for future academic years. Ultimately, this study will evaluate the P900 curriculum, and whether or not conduct of the P900 is a validated requirement, or is retained because of tradition or "institutional lore."

⁷ This is quote from a conversation with Dr. Thomas Bradbeer, one of the Master of Military Art and Science committee members. Follow-on research was unable to attribute this quote to any other source as it will be used later in chapter 5.

CHAPTER 2

LITERATURE REVIEW

The military, despite having some of the most stringent oversight requirements of any industry, has very little evaluation of preparatory curriculum across all services. The history of CGSC shows very little evaluation or mention of preparatory curriculum.

Based on the researcher's personal experience, the Department of Defense seems to be very prone to conduct preparatory courses of instruction. The researcher encountered at least fifteen different preparatory courses or indoctrinations during fourteen years of active service. This can be seen in training and schools within the Department of Defense, such as the Command and General Staff College. This can also be seen in the resources the Department of Defense provides to its service members and spouses in preparation for life after the military. The civilian world and private sector also seem to show a predilection towards preparing people for success as seen in the numerous test preparation courses available commercially. Despite this tendency, there is little research on the effectiveness and methodology of preparatory courses, whether in preparation for an exam or simply an indoctrination course.

The origin of joint professional military education has a long history, and dates back to the First World War. The Army and Navy undoubtedly needed to understand each other's service even then. Even before the turn of the twentieth century, officers in

⁸ This statement is an observation of the researcher over fourteen years of active service.

⁹ Peterson's DoD MWR Library, "Military Test Prep," NelNet, accessed May 12, 2015, http://www.nelnetsolutions.com/dodlibrary/.

both the Army and Navy had a rivalry that did not allow for healthy competition, but rather forged a divide creating distrust and a lack of interoperability. ¹⁰ Several senior officers believed that this divide could be overcome by having officers receive education at service schools to prepare them for the joint environment. ¹¹ This evolution occurred well before the National Security Act of 1947 and the Goldwater-Nichols Act of 1986; these acts are often viewed as the benchmarks for developing the joint operating environment and establishing joint education and service as an important component of military life. This idea actually downplays the fact that the military profession has been working towards joint solutions since 1898. ¹²

Journal and Master of Military Art and Science Review

Preparatory curriculum can mean several different things depending on the audience and the industry in which the preparatory course is conducted. Numerous industries such as medical, education, and military service conduct courses prior to the formal course of instruction or examination to prepare individuals for success. These preparatory courses are far more involved than an average study session for an examination. Preparatory courses usually span several days to several months prior to attendance at the targeted course. The medical industry has numerous examples of preparatory courses.

¹⁰ John W. Yaeger, "The Origins of Joint Professional Military Education," *Joint Forces Quarterly*, no. 37 (2005): 74-75.

¹¹ Ibid.

¹² Ibid., 74.

One example of a preparatory course comes from the medical field. The American Board of Surgery and several other surgical advocates consistently strive for ways to better prepare surgeons for life after medical school and residency. Much of this stems from a fear that students will not be adequately prepared for the intricacies of patient care after spending so many years in an educational environment. Resident preparatory curriculum focuses students on how to do what they will be doing as doctors as much as what they will be doing as surgeons. This focus better prepares the future doctors for the interpersonal requirements that accompany being a physician.

Another example of preparatory courses comes in the field of education. Test taking in America has spawned a booming industry of preparatory courses designed to increase test scores on standardized tests. Graduate education programs and medical schools are among the many educational institutions for which preparatory courses exist. Tom Wilkinson and Tim Wilkinson conducted surveys of students taking preparatory courses and showed that participation in a preparatory course for an entrance exam does not necessarily translate to increased test scores or overall performance. ¹⁵ On the other hand, the study indicated students had a more positive perception of how well they performed on the examination after attending the preparatory courses. The data and

¹³ American Board of Surgery, American College of Surgeons, Association of Program Directors in Surgery, "Statement on Surgical Preresidency Preparatory," *The American Surgeon* 80 (November 2014): 1085-1086.

¹⁴ Ibid.

¹⁵ Tom M. Wilkinson and Tim J. Wilkinson, "Preparation Courses for a Medical Admissions Test: Effectiveness Contrasts with Opinion," *Medical Education*, no. 47 (2013): 417.

analysis indicated the students' perception of improved performance was linked to financial outlay more so than their actual performance on the examination. ¹⁶

This mindset can be applied to CGSC as well. The P900 curriculum is conducted simply to increase the student's ability to participate and thrive in the course. This could be a fallacious way of thinking, however, since there have been no comparative assessments done to confirm students benefit from the curriculum in the preparatory courses. In that case, it could fall in line with the evaluation of Wilkinson and Wilkinson that the opinion of preparation and the effectiveness of preparation are mutually exclusive. However, there are no studies from CGSOC to evaluate this assertion.

Several studies show that upbringing and experience play more of a role in educational success than any curriculum received. David Elwood and Thomas Kane (2000)¹⁷ studied student populations and found a correlation between family income and college attendance. A 2006 study indicated family income during pre-college years was more of an indicator in attending and succeeding in college than preparatory curriculum in high school. ¹⁸ This is relevant information for this study because it shows that opportunity and upbringing may play a far more critical role than curriculum in education. In the case of a CGSOC student, experience (regardless of affiliation) and

¹⁶ Wilkinson and Wilkinson, 417.

¹⁷ David Ellwood and Thomas J. Kane, "Who is Getting a College Education? Family Background and the Growing Gaps in Enrollment," in *Securing the Future: Investing in Children from Birth to College*, eds. Sheldon Danziger and Jane Waldfogel (New York: Russell Sage Foundation, 2000), 284.

¹⁸ Philippe Belley and Lance Lochner, *The Changing Role of Family Income and Ability in Determining Educational Achievement* (Ontario, Canada: University of Western Ontario, 2007).

opportunity to attend the institution could be sufficient to allow success during the academic year. After a thorough review of the school's history, it seems the concept of preparatory curriculum is a relatively new idea beginning only in the 1980s.

Students from CGSOC have discussed the validity of the preparatory curriculum since its inception. In 1980, Paul V. Hester's Master of Military Art and Science thesis discussed how well the curriculum at CGSC prepared Air Force officers for their future positions. ¹⁹ Part of his thesis dealt with the preparatory curriculum of the college. At that time, Air Force officers attending the course were required to arrive at the school no later than the end of June in order to attend the Air Force preparatory course. ²⁰ Almost twenty-five years later, Navy and Air Force students are still required to report to the school before the 4th of July holiday in order to conduct similar preparatory training.

Major Hester's recommendations from his research included keeping the Air Force officer preparatory course. ²¹ It is interesting to note, however, that none of his research questions, or any of his survey questions dealt with any preparatory curriculum received at CGSOC. This may indicate that while preparatory courses are regularly conducted, little if any research after the fact is done to determine the efficacy of the course.

As mentioned in chapter 1, the Goldwater-Nichols Act of 1986 set forth requirements for the education of all joint-qualified officers. The requirement is now conducted in two phases during a military officer's career. Joint Professional Military

¹⁹ Hester.

²⁰ Ibid., 8.

²¹ Ibid., 46.

Education (JPME) I is conducted via Intermediate-Level Education (ILE) for all services. There is no requirement for joint experience to attend JPME I. The second phase, JPME II, is conducted at the beginning or end of a joint-qualifying tour. There is a common assumption that an officer's experience, along with JPME I & II are sufficient to develop successful joint-level military officers. The curriculum is reviewed internally to the services, but no recent studies show the effects of attendance at ILE on future performance. There are studies that show the effects of preparation courses on future performance outside of military education. One such study in 2013, showed that a particular teacher preparation program was successful in increasing the performance of elementary and high school student performance.²² Joint qualified officers are not graded on a scale that can be measured in the same way elementary students are graded. That difficulty in grading performance does not account for the fact that no research is available to show the benefits of attendance at ILE in creating capable and trained fieldgrade officers. All of this is relevant to the preparatory curriculum at CGSC because there is no law or policy or other external requirement forcing the use of preparatory curriculum for attendance at an ILE school and yet the U.S. Army chooses to continue holding the preparatory courses.

²² Gary T. Henry, Kristina M. Patterson, Shanyce L. Campbell, and Pan Yi, *UNC Teacher Quality Research: 2013 Teacher Preparation Program Effectiveness Report* (Chapel Hill: University of North Carolina College of Arts and Sciences, May 2013), accessed May 27, 2015, http://publicpolicy.unc.edu/files/2013/11/UNC_TQR_Overall ProgramReport Final.pdf.

Major Peter Godfrin argues that today's joint-qualified officers are woefully ill prepared for joint assignments due to the lack of "preparatory JPME." Preparatory JPME, as indicated in Godfrin's 2011 School of Advanced Military Studies monograph, starts during pre-commissioning for an officer and continues throughout that officer's career. If this assertion is true then it contradicts the notion that a short overview, such as the P900 curriculum, would have any efficacy in preparing an officer for the education at CGSOC. Much of the preparation Godfrin describes does not happen in a classroom.

Army education, because of Force XXI initiatives, has moved to the virtual world. The issue that arises with training in the virtual world is the ability for students, the Army's company and field grade officers, to effectively learn how to be a leader on the battlefield, while simultaneously embracing today's technology. In the 1990s, the Army developed Force XXI, along with Classroom XXI to facilitate learning within the rapidly growing virtual world. ²⁵ However, the focus of Force XXI was to create leaders who operate in diverse and stressful environments. This included the use of technology on the battlefield. ²⁶

²³ Peter F. Godfrin, Jr., "Preparing Field Grade Officers for Joint Staff Assignments" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, April 2011), 7.

²⁴ Ibid., 41-42.

²⁵ U.S. Army Training and Doctrine Command, TRADOC Pamphlet 525-5, Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the EARLY Twenty-First Century (Fort Monroe, VA: U.S. Army Training and Doctrine Command, 1994).

²⁶ Ibid., 2-6.

Major Randall Lane stated that the focus of Army training needed to deemphasize technology and increase the focus on the human dimension.²⁷ He felt, even in 1997 when his report was written, that the training methodologies used by the Army were designed to get the maximum output from the student in the course, but did not translate to responsibilities that officer would actually have in the operating forces.²⁸ The preparatory curriculum at CGSOC utilizes the digital environment to provide the instruction and examination, but the information sources are included to expose the students to the old-fashioned way of finding and applying information.

Army CGSC Curriculum Overview

CGSOC presents curriculum in four distinct phases: Preparatory courses,
Common Core, AOC, and electives. The college requires all incoming students, including
International military officers and Interagency civilians, to complete a prescribed set of
preparatory courses prior to commencing the academic year. These courses are designed
to make students aware of their own knowledge, as well as prepare them for participation
in the Common Core and AOC. The preparatory curriculum is further divided into five
separate courses. The required preparatory course(s) for any particular student are based
on that student's service or agency, branch or military occupation, and school he or she is
attending. The Common Core and AOC are taken by all resident students of the college.
The courses that are directed by the U.S. Army also have a course code that corresponds

²⁷ Randall C. Lane, "Learning Without Boundaries: The Future of Advanced Military Education" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, 1997).

²⁸ Ibid.

with the Army Training Requirements and Resources System (ATRRS).²⁹ This is relevant because it shows that the Army officially recognizes the course and has allocated resources and funding to the instruction.

The first preparatory course is the P920. This course consists of fifteen hours of online coursework required by all CGSOC students. The course has five modules: (1) Symbology; (2) Doctrine; (3) Army Organization; (4) Military Decision Making Process; and (5) Logistics. The P920 course, more so than any other course in the P900 curriculum is designed to gauge the students' current knowledge of Army doctrine and organization. The current course dates back to 1990, but has traditionally been a course for International officers, Interagency civilians, Sister Service officers, and certain U.S. Army branches.³⁰ The current course scope does not specify this point, but it does indicate the course size as being 318 students, approximately the number of the aforementioned audience, and much smaller than the entire student body.

The second preparatory course is P910, International Military Student preparatory course. In addition to a cursory introduction to life in the United States and an introduction the U.S. Armed Forces, International military students are given courses in

²⁹ U.S. Army Command and General Staff College, CGSC Circular 350-1, *US Army Combined Arms Center*, U.S. Army Combined Arms Center, January 18, 2012, accessed February 3, 2015, https://combinedarmscenter.army.mil/orgs/lde/staff/sgs/Policy/20120118_CGSC_Course%20Catalog_Circular_350-1.pdf.

³⁰ ATRRS, "Information for Course 2G-F68," U.S. Army, last updated August 8, 2013, accessed April 13, 2015, https://www.atrrs.army.mil/atrrscc/courseInfo.aspx?fy= 2015&sch=701&crs=2G-F68&crstitle=ILE+OFFICER+PREPARATORY&phase=.

basic writing and research methods commonly used at the college. The P910 course dates back to 1985.³¹

The third preparatory course is P930. This course consists of thirty-two hours of classroom instruction. The CGSC Course Catalog specifies that the course is for International officers, Sister Service officers, and Interagency partners.³² There are also numerous Army branches that attend the P930 course of instruction since their fields are more specialized (medical, legal, and religious specialties), and the student's exposure to tactical Army units can be somewhat limited. The goal of the P930 course of instruction is to give the students an entry-level knowledge of Army organizations, Army doctrine, and the Military Decision Making Process.³³ The ATRRS course number is 2G-F68, the same number indicated for the P920 course.³⁴

The fourth course of instruction is P950. This block of instruction is to prepare

Army officers for attendance to sister service and international institutions and will not be
discussed in this research.³⁵ The fifth preparatory block of instruction is P940, Special
Operations Forces Preparatory Course. This ten-day course is designed to prepare Special
Operations Forces officers to engage in their classes for all Special Operations Forces

³¹ ATRRS, "Information for Course 2G-F67X."

³² U.S. Army Command and General Staff College, CGSC Circular 350-1.

³³ This course description comes from four separate documents: P930 Advance Sheet, P930 Lesson 1 Advance Sheet, P930 Lesson 2 Advance Sheet, and P930 Lesson 3 Advance Sheet.

³⁴ ATRRS, "Information for Course 2G-F68."

³⁵ U.S. Army Command and General Staff College, CGSC Circular 350-1.

specialties, regardless of their individual specialty (i.e. Psychological Operations, Civil Affairs, etc.). 36

The college also executed several courses of instruction not covered in the CGSC Course Catalog, however, these courses are not registered in the ATRRS, nor are they contained in the CSGC Course Catalog.³⁷ The courses are hosted by CGSC, but the funding for these courses comes from the individual branches that teach the lessons.

These courses were as follows: P931-Branch Officer's Refresher Course, ³⁸ P934-Sustainment, P941-Artillery Officers Preparatory Course, P942-Engineer Officer Preparatory Course, ³⁹ and P943-Signal Officer Preparatory Course. ⁴⁰ During AY 2015, the college also conducted a pilot preparatory course, P990-Staff Officer Preparatory Course. ⁴¹ The purpose of these courses, with the exception of the P990 course, is to refresh the basic branch knowledge of the students in attendance to prepare them to be

³⁶ ATRRS, "Information for Course 2G-F68."

³⁷ U.S. Army Command and General Staff College, CGSC Circular 350-1.

³⁸ Department of Tactics, U.S. Army Comand and General Staff College, "P931: CGSOC Preparatory Course Advance Sheet," U.S. Army Command and General Staff College, Fort Leavenworth, KS, June 2014.

³⁹ Department of Tactics, U.S. Army Command and General Staff College, "DTAC Engineer Branch Planning Class 16," Advance Sheet for P942, Engineer Officer Preparatory Course, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2015.

⁴⁰ Department of Tactics, U.S. Army Command and General Staff College, "A340-Signal Officer Preparatory Course Advance Sheet," U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 2010.

⁴¹ U.S. Army Command and General Staff College Faculty, "Staff Officer Prep Course Brief" (Briefing presented to Deputy Commandant, U.S. Army Command and General Staff College, Fort Leavenworth, KS, July 17, 2014).

subject matter experts in their field for their particular staff groups. This role is very important for the exercises during the Common Core and AOC blocks of instruction.

The Common Core Curriculum and AOC comprise the forty-four-week resident course designed to prepare all students for future assignments at the operational and strategic level of the military and the federal government. This period of instruction fulfills officer JPME-I requirements and prepares the students, whether U.S. military or otherwise, to engage at higher levels of staff and command than they have worked in before attending the course. Significant focus is given to operational art and design, and students are encouraged to expand their knowledge of how to think rather than what to think. It is noteworthy that CGSC currently has no mechanism to gauge the knowledge of the students (i.e. inventory evaluations) prior to their arrival. The current preparatory curriculum is designed to set the baseline for the student body prior to the beginning of the school year.

Sister Service Curriculum Overview

Navy

The College of Naval Command and Staff is the U.S. Navy's ILE institution. The college goal is to prepare lieutenant commanders and majors for service as commanders, lieutenant colonels, and their Interagency equivalents. ⁴² The college schedules time for

⁴² U.S. Naval War College, "College of Naval Command and Staff," U.S. Navy, accessed April 23, 2015, https://www.usnwc.edu/Departments---Colleges/College-of-Naval-Command-and-Staff.aspx.

sister services to conduct service specific indoctrination courses, but the college does not conduct a formal preparatory course for the students.⁴³

Air Force

Air Command and Staff College, located at Maxwell Air Force Base, is the Air Force's ILE institution. The Air Command and Staff College prepares field-grade officers to develop, employ, and command airpower in joint, multinational, and interagency operations. ⁴⁴ Air Command and Staff conducts a program called First Fifty where fifty senior students are designated to report early in order to prepare for student leadership positions. ⁴⁵ The Air Command and Staff College does not conduct a formal preparatory or indoctrination.

Marine Corps

Marine Corps Command and Staff College, located in Quantico, Virginia, ⁴⁶ is the Marine Corps' ILE institution. Per the Command and Staff College mission statement, Marine Corps Command and Staff College "provides graduate level education and

⁴³ U.S. Naval War College, "2013-2014 Resident Academic Calendar," U.S. Navy, accessed April 23, 2015, https://www.usnwc.edu/getattachment/d971e60c-b2e7-4a10-9504-b0d13f1a99c7/AY13-14-Calendar.aspx.

⁴⁴ U.S. Air Force Air Command and Staff College, "About Air Command and Staff College," U.S. Air Force, accessed May 7, 2015, http://www.au.af.mil/au/acsc/about.aspx.

⁴⁵ U.S. Air Force Air Command and Staff College, "The ACSC First Fifty Program," U.S. Air Force, accessed May 7, 2015, http://www.au.af.mil/au/acsc/PDF/FIRST_FIFTY.pdf.

⁴⁶ All information on Marine Corps Command and Staff College was received through emails and phone conversations with Marine Corps University staff, Quantico, VA.

training in order to develop critical thinkers, innovative problem solvers, and ethical leaders who will serve as commanders and staff officers in service, joint, interagency, and multinational organizations confronting complex and uncertain security environments."⁴⁷ This is accomplished by teaching many of the same general topics as taught at CGSC, such as military history, leadership, and warfighting (tactics). The Marine Corps University curriculum includes preparatory work for the student body in the form of nine short reading assignments, ⁴⁸ as well as a new student orientation. ⁴⁹ However, there is no resident preparatory course for the student body other than the International officers who undergo one week of academic preparation. ⁵⁰

Summary

There is very limited research available on the efficacy of preparatory courses and indoctrination courses. The information that is available is generally concerning high school curriculum and its ability to prepare teenagers for college curriculum. This is far different from the concept of the P900 curriculum for U.S. Army CGSOC. The Army's preparatory curriculum is designed to remind students of the information they should know prior to attending the academic year. The other sister service institutions do not

⁴⁷ Marine Corps University, Command and Staff College, "AY 15 Course Overview" (PowerPoint briefing presented to Command Staff College students, Quantico, VA, July 7, 2014).

⁴⁸ Marine Corps University, "Command and Staff College," U.S. Marine Corps, accessed February 3, 2015, https://www.mcu.usmc.mil/csc/SitePages/Home.aspx.

⁴⁹ Marine Corps University, *Student Handbook*, U.S. Marine Corps, October 31, 2013, accessed February 3, 2015, https://www.mcu.usmc.mil/MCU%20Command% 20Policies/MCU%20Student%20Handbook.pdf, 24.

⁵⁰ Ibid., 23.

conduct a similar course for the students, even though the services are equally complex and unique.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

Chapter 3 details the strategy and method for this study. The purpose of this quantitative study was to determine the linkage between the preparatory curriculum at CGSOC and student performance during the academic year. The literature review on preparatory curriculum, both at CGSOC and outside sources, did not yield sufficient evidence that preparatory courses are effective in preparing students for specific schools. A quantitative approach, using a survey method, proved to be the most timely method to gauge the effectiveness of the CGSOC preparatory curriculum.

The literature review produced several sources indicating preparatory curriculum has mixed results. One study in particular showed that preparatory courses did not increase performance, only confidence.⁵¹ Other sources suggested that preparation for a school is a result of years of preparation and cannot be reproduced in a brief overview.⁵² Overall, the research on pre-course preparatory programs is limited, thus opening an opportunity for further study.

This study examines the perceptions of preparedness following the curriculum for which the CGSOC preparatory curriculum prepared the student. The study will provide an assessment of the preparatory curriculum from the perspective of both the students and

⁵¹ Wilkinson and Wilkinson, 417.

⁵² Godfrin.

the faculty, and based on the findings, evaluate the cost-benefit of conducting the P900 curriculum

Rationale

The research topic was best suited for a quantitative study due to the volume of students and faculty, and the time allotted to complete the research. A survey design allowed the researcher to identify trends in the respondent population. The trends of attitudes and opinions were valid based on the course objectives of making students self-aware of their own entry-level knowledge. The quantitative design of the study allowed the researcher to further utilize student self-awareness, as well as faculty observation, in gauging the effectiveness of the P900 curriculum.

The students at CGSOC all completed Common Core as part of the curriculum, and all but twenty completed the AOC. 53 Though the students come from many different backgrounds and operational experiences, the curriculum is homogenous, thus allowing for quantitative trend analysis through the survey method.

CGSC Research Review and Approval

The QAO of CGSOC is responsible for reviewing and approving human subject research for the college. The guidelines set forth for human subjects research at CGSOC are contained in U.S. Army Combined Arms Center Education Bulletin 40.⁵⁴ Approval

⁵³ CGSOC selects approximately twenty students per year to participate in the Art of War Scholars program. These students do not participate in the AOC.

⁵⁴ U.S. Army Combined Arms Center Education, Bulletin 40, *Research Review and Approval* (Fort Leavenworth, KS: U.S. Army Combined Arms Center, April 22, 2015).

for the research project came from the researcher's committee as well as the CGSOC OAO.

The Fort Leavenworth CGSOC campus was the only place the survey was conducted. Only the current resident class participated in the survey. No previous classes or distance learning classes participated in the study. The criteria for participants included the following:

- 1. The respondent had to be a current student from class AY 2015 or a current faculty member.
- 2. If the respondent was a student, that student had to be a participant in the P900 curriculum.

The researcher did not require faculty members to be instructors of any P900 courses.

Research Design

The data to answer the primary and secondary research questions was collected through surveys disseminated to the students and faculty through the CGSC QAO. The survey contained questions regarding attitudes and opinions concerning the P900 courses, and the benefit of participation in P900 to the students' abilities to complete Common Core and AOC. The survey specifically focused on gauging the effectiveness of the P900 curriculum. Two surveys were distributed: one to the student body, and one to the faculty. The student survey asked the following questions:

- 1. What is your affiliation (U.S. Armed Forces, Interagency civilian, International officer)?
- 2. If a U.S. Armed Forces student, what service (Army, Navy, Air Force, Marine Corps)?

- 3. What P900 courses did you participate in?
- 4. How familiar were you with the material taught in the P900 curriculum, specifically
- 5. Looking back on your instruction during the preparatory course(s) of instruction, rate the effectiveness of the P920 course in preparing you for the curriculum during C400-Tactics.
- 6. Looking back on your instruction during the preparatory course(s) of instruction, rate the effectiveness of the P920 course in preparing you for the curriculum during C500-Operational Art?
- 7. Looking back on your instruction during the preparatory course(s) of instruction, rate the effectiveness of the P920 course in preparing you for the curriculum during AOC (O100-O300).
- 8. Looking back on your instruction during the preparatory course(s) of instruction, rate the effectiveness of the P930 (or other branch specific course) course in preparing you for the curriculum during C400-Tactics
- 9. Looking back on your instruction during the preparatory course(s) of instruction, rate the effectiveness of the P930 (or other branch specific course) course in preparing you for the curriculum during C500-Operational Art
- 10. Looking back on your instruction during the preparatory course(s) of instruction, rate the effectiveness of the P930 (or other branch specific course) course in preparing you for the curriculum during AOC (O100-O300)
- 11. If given an alternative to the P900 courses of instruction, what instruction would have been beneficial for your academic year?

- 12. What period(s) of instruction would you eliminate from the P900 curriculum?
- 13. What courses would you recommend for future classes?

The first question focuses strictly on demographics of the individuals taking the surveys. This data was necessary to categorize perceptions and attitudes captured in the population. Question 2 sought to determine differences between members of the U.S. Armed Forces.

The faculty survey was similar, but shorter. The faculty members answered questions on their department, as well as their years on the faculty at CGSC. The faculty responded to questions regarding the P900 curriculum:

- 1. Based on your area of instruction, how well do you feel the P900 courses of instruction prepared your students for the academic year?
 - 2. How relevant is the P920 information to the students?
- 3. How redundant is the material taught in P920 to the material taught in the academic year?
- 4. How redundant is the material taught in P930 (or other branch specific course) to the material taught in the academic year?
- 5. How relevant is the P930 (or other branch specific course) information to the students?
 - 6. What would you add to the preparatory curriculum?
 - 7. What would you eliminate from the preparatory curriculum?

Instruments and Forms Requirements

The researcher used Inquisite to build the form for the survey. The questions were drafted in Microsoft Word for review, and then the researcher created a unique survey

template for the final survey. The published survey used Allegiance web-based software. The respondent requirement was a Common Access Card-enabled computer. The selection of respondents came from the CGSOC QAO in the form of an email of the web-based survey. The survey required respondents to remain anonymous to retain privacy for the respondents and eliminate bias for the researcher.

The email sent to the respondents contained the subject identification for the survey, as well as the identification of the researcher. The email also contained the internet link to the survey. The first page of the survey contained the required informed consent notification, the survey control number from CGSOC, and the QAO contact information.

Data Collection and Analysis Plan

Data Collection

The specific requirements for the population were intentionally general in order to gain significant trend analysis for a quantitative study using a survey method. All participation was voluntary for both the students and the faculty. The surveys were anonymous and the researcher had no access to any personally identifiable information.

The researcher, with assistance from the QAO, determined the population could only feasibly be the current resident student population and the current resident faculty. The site chosen to accomplish this was the Fort Leavenworth CGSOC campus. This provided the captive audience to collect the data. The students and faculty could access

the survey through computers at the Lewis and Clark Center, ⁵⁵ the Ike Skelton Combined Arms Research Library, ⁵⁶ or through their personal computers. ⁵⁷

Analysis Plan

The data collected through the Inquisite surveys could be captured through the Allegiance web-based software. This software provided functionality to analyze the Likert Scale portion of the survey and identify trends. The Allegiance software also provided the researcher a means by which to conduct a chi-squared Kruskal-Wallis test on the data through SPSS. Again, the independent variable was a student's or faculty member's participation (or knowledge of the curriculum) in the P900 preparatory courses. The dependent variable was the perceptions of effectiveness of the preparatory curriculum. This dependent variable was tested through several different questions to ensure the breadth of curriculum was covered in the data.

The survey also contained several open-ended questions to allow for more subjective input. The questions dealt with material that should be added or removed from the curriculum, as well as additional comments for clarification and elaboration. This

⁵⁵ The Lewis and Clark Center is the CGSOC school house, located at 100 Stimson Avenue, Fort Leavenworth, KS 66027. The school house contained eight to ten desktop computers in every class room. The students and faculty could access the survey using their common access cards on this network.

⁵⁶ The Ike Skelton Combined Arms Research Library is located adjacent to the Lewis and Clark Center on Fort Leavenworth. Desktop computers are available at the library for patron use. Respondents to the survey could access the survey using their common access card on the library computers.

⁵⁷ The survey was available through students and faculty personal computers if they were Common Access Card enabled.

input was categorized by keywords in the responses to identify trends. These trends based on keywords were then analyzed for statistical significance.

Finally, the researcher used the CGSC model of categorizing the responses to the survey into favorable and not favorable responses. The college benchmark for meeting the standard is 66 percent (plus or minus the standard deviation) or more of the respondents answering favorably. The researcher expected the faculty to have a different standard deviation than the students based on the population size.

Additional Data Collection

Cost Analysis

Part of the incorporated research was a simple cost analysis. This cost analysis did not focus on the resources required to generate, maintain, and facilitate the P900 block of instruction. For simplicity, the cost analysis focused on the cost of the time spent in the execution of the P900 block of instruction. The data will include the following demographics:

- 1. The resident students at CGSOC.
- 2. The resident faculty at CGSOC.⁵⁸

The analysis will also include two methods of capturing cost of the students and the faculty conducting or participating in the P900 curriculum. For the purpose of simplicity in the cost-analysis model, the researcher assumed that all students are active

⁵⁸ It is important to note that the researcher used only active duty lieutenant colonels for the cost analysis. The researcher understands and acknowledges that the newer civilian faculty salary is less than a lieutenant colonel with twenty years service, and comprises a high percentage of the instructors for the P900 curriculum.

duty majors with twelve years of service, and all faculty are active duty lieutenant colonels with twenty years of service.

There are two viewpoints by which the cost will be analyzed. The first is from the perspective that students and faculty are paid based on 261 workdays a year for eight hours a day totaling 2,088 hours. Leave and holidays were included in the 261 days since active duty service members are still working during those times. The second viewpoint is from the perspective that students and faculty are salaried employees that receive their pay twenty-four hours a day for 365 days. The purpose of these two perspectives is to eliminate bias in the analysis and provide future researchers several options for cost analysis.

The data from the cost per hour breakdown was then tabulated with the documented course hours from each individual course. The researcher then multiplied this by the number of students in each course, or the number of instructors in each course. This data was analyzed to provide information about the relative value of time for the CGSOC preparatory curriculum instruction.

Summary and Conclusions

The research design facilitated answering the research questions and gaining an understanding of how well the P900 curriculum prepared the students for the academic year. The design also enabled the researcher to account for service and affiliation, as well as gain an appreciation for faculty attitudes towards the course and how well they felt the course prepared the students. The research enabled the researcher to account for chance in the responses and analyze trends in the open-ended responses.

CHAPTER 4

FINDINGS AND ANALYSIS

The primary research question asked how the preparatory curriculum prepared the student for the academic year. Based in the data analysis it did not prepare them well.

H1 was supported. The analysis indicated there is no relationship between the preparatory curriculum and student preparedness. This answers secondary questions 1 and 2

 $H2_0$ was supported. The analysis indicated there is a relationship between department and/or number of years on the faculty and the perception of relevance of the P900 curriculum. This answered secondary question 3.

H3 was supported. The analysis indicates there was no relationship between the preparatory curriculum and faculty perception of student preparedness. This answers secondary question 4.

H4 is supported. The analysis indicates there is no relationship between familiarity with the preparatory curriculum and student preparedness for the academic year. This answers secondary question 5.

Data Analysis

The researcher collected data from the students and faculty in a similar manner to how the CGSC QAO collects data for the graded curriculum. The researcher, with the assistance of the CGSC QAO, also processed the data in a similar fashion to the graded curriculum to gain a mathematical appreciation for the data's statistical significance. The college currently maintains a standard of 66 percent +/- the confidence interval to

ascertain whether responses met the criteria, did not meet the criteria, or if the data is insufficient or cannot say. The responses are categorized with two of the four responses considered favorable. For example, the responses of the faculty concerning the perception of student preparedness for the academic year, produced a percentage of 59 percent. In survey responses, the college desires to achieve a standard of 66 percent favorable (Very Well Prepared + Moderately Well Prepared). When taking into account a confidence level of +/- 7 percent the acceptable range would be between 59 percent and 73 percent. In this case, the responses showed that responses did not meet the criteria, and that there is a 95 percent chance that this data represented the entire faculty population.

Student Responses

The student population came solely from the AY 2015 student body. The QAO distributed the survey to 596 students. Of those contacted, eighty participated. Out of eighty participants, seventy-five students, or 94 percent, were U.S. military officers. No International officers responded to the survey. The U.S. Armed Forces breakdown is represented in the table below.

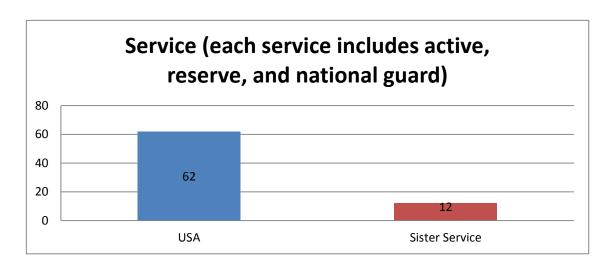


Figure 1. Student Demographics

Source: "P900 Curriculum Evaluation by a Student," Survey Number 15-03-037, Quality Assurance Office, U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 13-April 2, 2015.

The researcher also asked the students to indicate in which P900 classes they participated. The results for this question is are depicted below:

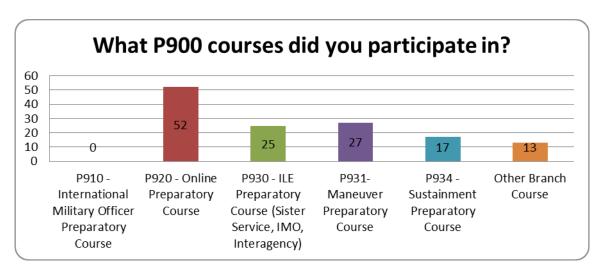


Figure 2. Student Course Participation

Source: "P900 Curriculum Evaluation by a Student," Survey Number 15-03-037, Quality Assurance Office, U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 13-April 2, 2015.

It is important to note that all students were required to take the P920 prior to the beginning of the school year. The data retrieved, specifically for P920 shows only fifty-two of eighty students indicated they attended the P920. This may indicate one or more of the following problems: (1) the student intentionally did not complete the P920 coursework; (2) the student was unaware of the course title; or (3) the student was not aware the requirement existed.

The student survey input provided two measures of data. The first was the Likert Scale questions to gauge the effectiveness of the curriculum with regard to the preparatory curriculum. The second input came from the open-ended questions at the end of the survey.

Student Likert Scale Findings

Data Analysis

As discussed at the beginning of chapter 4, the researcher evaluated the responses with the same methodology the college uses to evaluate the graded curriculum. The researcher categorized the student responses to questions related to preparedness because of the P900 curriculum. Two of the answers (Very Well Prepared and Moderately Well Prepared) were identified as favorable responses. The student confidence interval using α = 0.05 gave a confidence interval of 66 percent +/- 9 percent. The difference in the confidence interval for the students and faculty are due to the difference in response rate. Any value over 75 percent would infer a 95 percent certainty that the population met the standard. Any value under 57 percent indicated the responses did not meet the standard typically expected by CGSC. Any percentage in between would be inconclusive. As shown in the table below, all six student questions on preparedness from the P900 curriculum received responses that did not meet the standard.

Table 1. Student Response Evaluation

| Question | Metric | Very well prepared | Moderately well prepared | Favorable | Standard | Somewhat prepared | Not prepared |
|---|---------|--------------------|--------------------------------|-----------|----------|-------------------|-----------------|
| How well did the P920 course in | Count | 5 | 32 | 37 | Didn't | 34 | 7 |
| prepare you for the C400- Tactics block of instruction? | Percent | 6 | 41 | 47 | Meet | 44 | 9 |
| How well did the P920 course in | Count | 0 | 20 | 20 | Didn't | 38 | 20 |
| prepare you for the C500- Operational Art block of instruction? | Percent | 0 | 26 | 26 | Meet | 49 | 26 |
| How well did the P920 course in | Count | 3 | 25 | 28 | Didn't | 35 | 15 |
| prepare you for the AOC (O100-O300) block of instruction? | Percent | 4 | 32 | 36 | Meet | 45 | 19 |
| How well did the P930 (or other | Count | 3 | 31 | 34 | Didn't | 34 | 9 |
| branch specific) course in prepare you for the AOC (O100- O300) block of instruction? | Percent | 4 | 40 | 44 | Meet | 44 | 12 |
| How well did the P930 (or other | Count | 1 | 26 | 27 | Didn't | 34 | 16 |
| branch specific) course in prepare you for the C500- Operational Art block of instruction? | Percent | 1 | 34 | 35 | Meet | 44 | 21 |
| How well did the P930 (or other | Count | 5 | 35 | 40 | Didn't | 26 | 11 |
| branch specific) course in prepare you for the C400-Tactics block of instruction? | Percent | 6 | 45 | 51 | Meet | 34 | 14 |

Source: Created by author and Dr. David Bitters, Statistician, CGSC QAO, using data from "P900 Curriculum Evaluation by a Student," Survey Number 15-03-037, Quality Assurance Office, U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 13-April 2, 2015.

The researcher compared the student responses to the Likert Scale survey questions by branch (U.S. Army, U.S. Marine Corps, U.S. Navy, U.S. Air Force, Interagency) and the demographic involving familiarity with the material taught during the P900. For these comparisons, the researcher used a Kruskal-Wallis non-parametric mean rank test to see if statistically significant differences existed in the responses. In each case the researcher used α =.05 as the significance level to determine if statistically significant differences existed based on the students' familiarity with the P900 material. For the Kruskal-Wallis comparison by the Branch demographic (USA, USMC, USN, USAF, Interagency), the researcher found no statistically significant differences. For the

Kruskal-Wallis comparison by familiarity with P900 material, the researcher found no statistically significant differences.

Trend Analysis

The researcher queried the students on their familiarity with the material they covered in the P900 curriculum. This query included the P920, P930, and all branch specific courses. The researcher expected to see a trend of higher familiarity from Army students than the Sister Service students and Interagency students. Overall, the student body indicated a 48 percent response rate that they were Somewhat Familiar with the material, and almost 12 percent indicating they were Not At All Familiar. Four of the nine students indicated they were Not At All Prepared, but did not indicate their status (active duty, reserve, or National Guard). The U.S. Army had sixty-two responses to this question. More than 48 percent of the soldiers in the class indicated they only felt somewhat familiar with the material presented in the P900 courses. The Sister Service officers showed a similar pattern with the majority feeling Somewhat Familiar (50 percent), followed by Very Familiar (25 percent). There were only three Interagency responses to the survey. The Interagency student responses were either Not At All or Somewhat Familiar.

C400: The researcher polled the selected student body on how well the P920 curriculum, and subsequent branch-specific curriculum, prepared the individual student for the C400-Tactics curriculum. The question about P920 had a 98 percent response rate or seventy-eight students providing a response. The primary response to this question was Somewhat Prepared at a response rate of 43.5 percent. The next highest response was Moderately Prepared with a response rate of 41 percent. These survey results show the

overall sense of preparedness of the student body was nearly 85 percent Somewhat to Moderately Prepared. Only five students, or 6 percent, indicating they felt Well Prepared. Alarmingly, 9 percent of the student population indicated that they felt Not Prepared after completion of the P920 block of curriculum. The question regarding the student feeling of preparedness following the P930 (or other branch specific) course indicated a similar trend, though the surveyed population had a higher feeling of preparedness overall. Over 45 percent of the respondents felt they were moderately prepared for the tactics curriculum based on their instruction in the P930 (or other branch specific) course. Even though the feeling of preparedness was slightly higher, the student body still had over 80 percent of the respondents indicate they felt only Somewhat to Moderately Prepared.

This data could easily be biased by the fact that the P900 courses span the breadth of services, as well as International officers and Interagency civilians. However, that argument is not legitimate because 77.5 percent of the respondents were United States Army. Sister Service and Interagency students, on average, felt less prepared for C400 (Tactics) than U.S. Army students. The overall trend showed 82 percent and 77 percent of the Army officers felt only Somewhat to Moderately Prepared for the C400 curriculum based on their participation in both the P920 and P930 (branch specific) curriculums, respectively. With the Sister Services, the students felt more prepared for C400 (Tactics) based on their experience in the P930 course.

C500: The C500-Operational Art block of instruction was the last part of the Common Core Curriculum that all students attended. The researcher polled the student body on their feelings of preparedness for C500-Operational Art based on their participation in both P920 and the P930 (or other branch specific) course. The most

notable statistic was that only one student felt Well Prepared for C500 after attending the P900 courses. Almost 49 percent of the students felt Somewhat Prepared based on P920, and only 44 percent felt Somewhat Prepared after the branch courses. The responses for Not Prepared showed a very high percentage of 26 percent and 21 percent for the P920 and branch course, respectively.

The service/affiliation trend for preparedness for C500 closely mirrored the overall average for the student respondents. None of the surveyed population indicated a feeling of Well Prepared. The Army had almost 50 percent of the students respond to feeling only Somewhat Prepared from their P920 and branch experience. The Sister Service students responded with 50 percent feeing only Somewhat Prepared following the P920 course. The feeling shifted drastically following the P930 course. The Sister Service students felt they were predominately Moderately Prepared for C500 based on their P930 experience. This could be attributed to the fact that the P930 class composition contains U.S. Armed Forces, U.S. Interagency, and International military officer. These students are exposed to a joint/coalition environment before the school year, where the majority of Army officers do not get the same opportunity. ⁵⁹

AOC: The survey trends for AOC were similar to the Common Core with regard to the feeling of preparedness after attending the P920 course and the branch courses. The overwhelming majority of students (77 percent) felt they were only Somewhat to Moderately Prepared. The P920 responses showed almost 45 percent felt only Somewhat Prepared, and only 4 percent felt Well Prepared for the AOC work. A total of 19 percent

⁵⁹ The focus of C500-Operational Art is military operational in a joint, coalition, and/or multinational environment.

of the respondents felt they were Not Prepared for AOC based on their P920 instruction. The respondents also indicated similar trends with feeling Well Prepared or Not Prepared at 6 percent and 14 percent respectively. This trend was mirrored, albeit not to the same degree, with the branch courses. Students responding to the question regarding their preparedness with regard to the P930 and/or branch specific course showed that over 84 percent of the students felt Somewhat to Moderately Prepared. The percentage of students who felt Not Prepared decreased to 12 percent.

Again, 40 percent of the Army students indicated they were Somewhat Prepared for the AOC portion of the curriculum based on their experience with the P920 course. The Army students' feeling of preparedness following P930 increased to 42 percent in both the Somewhat and Moderately Prepared categories. This rise is likely due to two reasons: (1) students have had time to reflect on the P900 and C400 experiences before the AOC portion of the curriculum is executed; and (2) students are more likely to be placed in a billet based on their expertise during the group exercises so they are more comfortable with the curriculum

The Sister Service and Interagency responses showed no significant increase with respect to preparedness after the P920 curriculum. However, the feeling of preparedness for the AOC portion of the curriculum increased when considering the P930 curriculum. The Sister Services showed increases in their preparedness levels between the P920 to P930 of 25 percent to 50 percent in the Moderately Prepared category. In addition, one of the three Interagency students indicated they felt Well Prepared based on their P930 instruction. While this is only one respondent, it accounts for 33 percent of the Interagency respondents. Nine total students responded that they did not feel prepared for

the AOC portion of the curriculum based on their participation in the P930 course work. A total of eight of those respondents were U.S. Army students. It is noteworthy that Sister Service and Interagency students felt more prepared for Army-centric planning exercises than U.S Army students did since the majority of the preparatory curriculum is material that Army students have already been exposed to at some point in their career.

Student Open-Ended Responses

The researcher gave the student respondents an opportunity to provide openended responses on the P900 curriculum. The researcher queried the students on three areas: (1) what the students would add to the curriculum; (2) what the students would eliminate from the curriculum; and (3) how would the students use the time if given an alternative.

The students' most common answer dealt with additional coursework or topics of instruction. Over 40 percent of the responses indicated specific courses they felt needed to be added to the P900 curriculum that would have assisted them with the academic year. The second most common response, at 34 percent, was that nothing needed to be added to the curriculum. In total, there were no specific topics or trends with regard to adding to the curriculum. Of note, only seven students, or 15 percent, recommended that more reading and writing classes be added to the schedule. This is important considering the CGSOC piloted a new P900 course during AY 2015 specifically targeting areas considered shortfalls in the students' abilities including writing.

The question regarding eliminating course material received a similar response in that 53 percent of the student responses indicated they would not eliminate anything from the curriculum. The remaining responses were evenly split between eliminating the P920

online portion in its entirety or eliminating portions of the branch specific courses. This trend continued with the question regarding alternative instruction. Only forty students responded to this question and 32 percent had no alternative suggestions. The remaining responses primarily recommended changes to branch specific courses.

The students, based on their open-ended responses, predominately feel the P900 is good as-is. This may contradict the survey data which shows that they felt only Somewhat to Moderately Prepared for the academic year. There were several responses which were not trends but offered additional and alternative periods of instruction, mostly dealing with academic writing and reading improvement. It seems, at least without further research, that students would not change the curriculum, even though their perceived level of preparedness is less than ideal. The researcher believes this shows that student performance in the course would have been similar had the P900 courses not been conducted at all. As mentioned earlier, there was no control group to assess academic marks against with regard to the P900 curriculum.

Faculty Responses

The faculty responses provided a margin of error of 7 percent when using a confidence interval of $\alpha=0.05$. The researcher categorized the faculty responses to questions related to preparedness, redundancy, and relevancy of the P900 curriculum. Two of the answers (Very Well Prepared and Moderately Well Prepared) were identified as favorable responses. The faculty confidence interval using $\alpha=0.05$ gave a confidence interval of 66 percent +/- 7 percent. As shown in the table below, the faculty did not feel the students were prepared for the academic year based on the P900 curriculum.

Table 2. Faculty Response Evaluation

| Question | Metric | Very Well | Moderately Prepared | Favorable | Standard | Somewhat Prepared | Not Prepared |
|--|---------|--------------|------------------------|-----------|----------|----------------------|-----------------|
| | | Prepared | ' | | | · · | · |
| Based on your area of | Count | 9 | 48 | 57 | Didn't | 38 | 1 |
| instruction, how well do you feel the P900 courses of instruction prepared your students for the academic year? | Percent | 9 | 50 | 59 | Meet | 40 | 1 |

| Question | Metric | Very | Moderately | Favorable | Standard | Somewhat | Not |
|---|---------|----------|------------|-----------|----------|----------|----------|
| | | Relevant | Relevant | | | relevant | relevant |
| How relevant is the P920 | Count | 44 | 39 | 83 | Met | 11 | 0 |
| curriculum information to the students? | Percent | 47 | 41 | 88 | | 12 | 0 |
| How relevant is the P930 or | Count | 43 | 31 | 74 | Met | 16 | 1 |
| other branch specific instruction curriculum information to the students? | Percent | 47 | 34 | 81 | | 18 | 1 |

| Question | Metric | Very | Moderately | Favorable | Standard | Somewhat | Not |
|--|---------|-----------|------------|-----------|----------|-----------|-----------|
| | | Redundant | Redundant | | | redundant | redundant |
| How redundant is the | Count | 15 | 37 | 52 | Didn't | 36 | 6 |
| material taught in P920 to | Percent | 16 | 39 | 55 | Meet | 38 | 6 |
| the material taught in the academic year? | | | | | | | |
| How redundant is the P930 | Count | 15 | 30 | 45 | Didn't | 34 | 13 |
| or other branch specific instruction curriculum information to the students? | Percent | 16 | 33 | 49 | Meet | 37 | 14 |

Source: Created by author and Dr. David Bitters, Statistician, CGSC QAO, using data from "P900 Curriculum Evaluation by a Student," Survey Number 15-03-037, Quality Assurance Office, U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 13-April 2, 2015.

The researcher compared the faculty responses to the Likert Scale survey questions by department and years of service for the faculty demographics. For these comparisons, the researcher used the Kruskal-Wallis non-parametric mean rank test to see if statistically significant differences existed in the responses. In each case the researcher used α =.05 as the significance level to determine if statistically significant differences existed.

The cases in which the researcher detected statistically significant differences are highlighted below. In the tables presented below the lower the mean rank response is for

a given question, the more the result tends to be skewed toward the favorable responses (e.g. Very Relevant, Moderately Relevant). In the case of statistically significant results, the lowest mean rank response is statistically significantly lower than the highest mean rank response. The researcher, however, cannot necessarily make this claim for other pairs of values between these two numbers. Therefore, the focus is primarily on the lowest and highest mean ranks.

Table 3. Faculty Responses by Department

| Question | Department | N | Mean Rank | Very Well Prepared % | Moderately Prepared % | Somewhat Prepared % | Not Prepared % |
|-----------------------------------|------------|----|--------------|----------------------------|--------------------------|------------------------|----------------------|
| **Based on your area of | Leadership | 4 | 32.50 | 0 | 100 | 0 | 0 |
| instruction, how well do you feel | DJMO | 27 | 43.80 | 15 | 48 | 37 | 0 |
| the P900 courses of instruction | DLRO | 21 | 45.26 | 0 | 71 | 24 | 5 |
| prepared your students for the | Tactics | 36 | 49.43 | 14 | 36 | 50 | 0 |
| academic year? | History | 5 | 65.70 | 0 | 20 | 80 | 0 |

^{**} Statistically significant differences not detected.

| Question | Department | N | Mean | Very | Moderately | Somewhat | Not |
|-----------------------------------|------------|----|-------|----------|------------|------------|----------|
| | | | Rank | Relevant | Relevant % | relevant % | relevant |
| | | | | % | | | % |
| *How relevant is the P920 | Tactics | 36 | 39.75 | 61 | 31 | 8 | 0 |
| curriculum information to the | DLRO | 21 | 40.50 | 57 | 38 | 5 | 0 |
| students? | DJMO | 26 | 53.10 | 35 | 46 | 19 | 0 |
| | Leadership | 4 | 62.50 | 0 | 100 | 0 | 0 |
| | History | 4 | 68.50 | 0 | 75 | 25 | 0 |
| *How relevant is the P930 or | DLRO | 20 | 30.50 | 75 | 25 | 0 | 0 |
| other branch specific instruction | Tactics | 35 | 43.07 | 51 | 31 | 14 | 3 |
| curriculum information to the | DJMO | 25 | 52.64 | 36 | 28 | 36 | 0 |
| students? | Leadership | 4 | 57.50 | 0 | 100 | 0 | 0 |
| | History | 4 | 63.13 | 0 | 75 | 25 | 0 |

^{*}Statistically significant differences at $\alpha = 0.05$

| Question | Department | Ν | Mean | Very | Moderately | Somewhat | Not |
|-----------------------------------|------------|----|-------|-----------|------------|-----------|-----------|
| | | | Rank | Redundant | Redundant | redundant | redundant |
| | | | | % | % | % | % |
| **How redundant is the material | Leadership | 4 | 27.13 | 25 | 75 | 0 | 0 |
| taught in P920 to the material | History | 4 | 41.00 | 25 | 50 | 0 | 25 |
| taught in the academic year? | Tactics | 36 | 41.33 | 28 | 33 | 33 | 6 |
| | DJMO | 26 | 51.42 | 8 | 38 | 50 | 4 |
| | DLRO | 21 | 51.83 | 5 | 43 | 48 | 5 |
| **How redundant is the P930 or | Leadership | 4 | 27.00 | 50 | 25 | 25 | 0 |
| other branch specific instruction | History | 4 | 40.25 | 50 | 0 | 25 | 25 |
| curriculum information to the | Tactics | 35 | 42.67 | 23 | 31 | 31 | 14 |
| students? | DJMO | 25 | 48.70 | 8 | 36 | 44 | 12 |
| | DLRO | 21 | 48.81 | 5 | 43 | 38 | 14 |

Source: Created by author and Dr. David Bitters, Statistician, CGSC QAO, using data from "P900 Curriculum Evaluation by a Student," Survey Number 15-03-037, Quality Assurance Office, U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 13-April 2, 2015.

The Kruskal-Wallis comparison by department demographic resulted in statistically significant differences for two of the survey questions: How relevant is the P920 curriculum information to the students? and How relevant is the P930 or other branch specific instruction curriculum information to the students? In both cases, the

Department of Military History (DMH) gave the least favorable responses. Details are in figures 3 and 4.

The survey was sent to 296 faculty members with ninety-five members responding. According to the Raosoft statistic calculator, this produces a margin of error of 8.31 percent. Historically, this is an exceptional response for surveys at CGSC. The faculty breakdown by department is shown in figure 3.

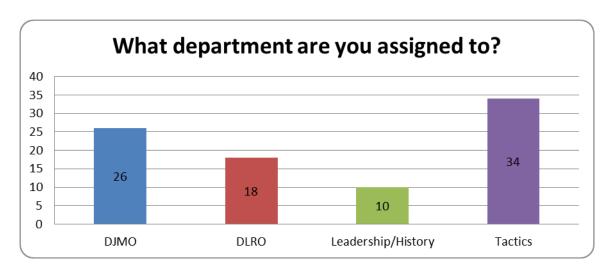


Figure 3. Faculty Demographics by Department

Source: "P900 Curriculum Evaluation by a Student," Survey Number 15-03-037, Quality Assurance Office, U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 13-April 2, 2015.

The faculty responses for the question, How many years have you been on the faculty? produced a fairly evenly distributed population as shown in figure 4.

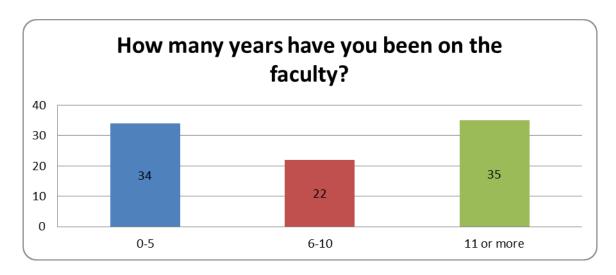


Figure 4. Faculty Demographics by Years on Faculty

Source: "P900 Curriculum Evaluation by a Student," Survey Number 15-03-037, Quality Assurance Office, U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 13-April 2, 2015.

Faculty Likert Scale Responses

Preparedness

The researcher queried the faculty as to the preparedness of their students based on the instruction of the P900 curriculum. This particular question had a 98 percent response rate. As seen from the above charts, the majority of the respondents, approximately 37 percent, belonged to the Department of Tactics (DTAC). The P920 curriculum focused almost entirely, with the exception of one module on logistics, on Army tactics and doctrine taught by DTAC. The survey results indicated that only seven instructors thought their students were very well prepared for the academic year. Of these respondents, five were from DTAC. Only one respondent felt the students were not adequately prepared by the P900 curriculum. This respondent belonged to the Department of Logistics and Resource Operations (DLRO). The majority of the faculty

responses to preparedness, about 91 percent, felt their students were Somewhat Prepared or Moderately Prepared for the academic year. The statistic remained the same regardless of department.

All faculty took identical surveys, but the survey design prompted the respondent to answer based on their department and area of expertise with regard to student preparedness. The population responded with the exception of two individuals, who either chose not to respond or mistakenly skipped the question. All of the departments, with the exception of DTAC, followed the overall faculty trend of Moderately Prepared being the most common answers. DTAC, however, showed a trend of a lower student preparedness ratio, with the majority of answers falling into the Somewhat Prepared category.

The faculty also answered a question on the length of time on the faculty. All three groups within this population had the majority of responses in the Moderately Prepared and Somewhat Prepared categories. The one noticeable difference is the instructors with six to ten years of service had evenly matched responses on preparedness. This correlates with the above statistics showing that DTAC instructors primarily felt their students were Somewhat Prepared.

Relevancy

The faculty responded to a question concerning the relevancy of the P900 curriculum. This question had a 97 percent response rate. The faculty responded positively with regard to the relevancy of the course with 88 percent responding in the highest two categories. Over 45 percent of the faculty responded that the curriculum of P900 was Very Relevant, and 43 percent indicated that the curriculum was Moderately

Relevant. None of the respondents felt the curriculum was Not Relevant. The individual departments, however, differed in overall opinion of the curriculum's relevancy.

The above statistics showed an overwhelming trend that the faculty felt, at least moderately, that the P900 curriculum is relevant. Two departments, DLRO and DTAC, felt very strongly that the P900 curriculum is relevant. The other three departments felt overwhelmingly that the curriculum was Moderately Relevant. This difference is likely due to the P920 curriculum, as well as much of the other P900 instruction, being a precursor to the tactics, sustainment, and Military Decision Making Process lessons taught during C400. The P900 block does nothing to prepare the students for instruction or coursework from the DMH or the Department of Command and Leadership (DCL).

The responses to this question concerning relevancy had no significant differences based on years of service of the faculty. The preponderance of responses showed the faculty with a majority response of Very Relevant with regard to the relevancy of the P900 curriculum.

Redundancy

The researcher queried the faculty on how redundant they felt the P900 curriculum was for the students compared to the lessons taught during Common Core. This question had a response rate of 88 respondents, or 97 percent. Almost 41 percent of the responses indicated the faculty felt the instruction in P900 s is Somewhat Redundant, followed closely by Moderately Redundant at almost 39 percent. Department affiliation had no impact on this question.

Three of the departments (Department of Joint, Multinational, and Interagency Operations (DJIMO), DTAC, and DLRO) all had responses that followed the faculty

averages. Two of the departments (DMH and DCL) had no responses in the Somewhat Redundant category, which differed from the overall average significantly. This is interesting to note since the history and leadership departments have the highest percentage of longevity instructors compared to the other departments.

The leadership and history departments had a respondent population where 60 percent of the population had more than eleven years as an instructor at CGSC. This differed greatly from the other three departments (DTAC, DLRO, and DJMO) with an average long-term population of 39 percent. This phenomenon, however, did not correlate to the faculty data when sorted by age. The faculty data for instructors with more than eleven years at CGSOC showed an almost identical trend to the entire faculty population with regard to redundancy. The outlier population with regard to age was the group of instructors with zero to five years as an instructor. The overall feeling of redundancy from the zero to five-year instructor population was notably higher than the six to ten-year population and the eleven years or more population. This youngest department by years of experience is DTAC, but no correlation between years of instruction and redundancy could be found with this department.

Faculty Open-Ended Responses

The researcher offered the faculty a chance to respond to open-ended questions as well. The questions were very similar to the student questions regarding what to add or eliminate from the P900 curriculum. The researcher categorized the responses to the open-ended questions based on keywords in the responses. The responses were then sorted by keyword/topic. The response totals for each category were tallied to gain a percentage for the responses or topics.

The query regarding material that should be eliminated from the course had fifty-three responses out of the ninety-one instructors who took the survey. Of these, fifty-three responses, almost 38 percent responded that they would not eliminate anything from the preparatory curriculum. However, 36 percent indicated they would eliminate some or all of the P900 instruction. There were also several instructors that did not know the make-up of the P900 curriculum. Although it is not pertinent to this study, this indicates there is a communication problem between the curriculum developers and the instructors, particularly those who do not teach the P900 courseware.

The question regarding additions to the course had sixty-seven responses. This equated to a 74 percent response rate. The major keywords/topics noted in the responses were, in order of recurrence: (1) more or different coursework; (2) nothing or no change; and (3) writing and briefing skills classes. These comments accounted for 27 percent, 24 percent, and 18 percent, respectively. The majority of the comments focused on changing the coursework and framework of the course, but some offered alternative instruction ideas. Some of these ideas were as obscure as adding a course in statistical analysis, while others were more focused on changes within the existing curriculum. Other than the specific content presented, the faculty predominately felt that the time spent in the P900 courses is appropriate to prepare the student for the year. This seemingly contradicts the data indicating the majority of the faculty surveyed felt their students were only Somewhat to Moderately Prepared for the academic year.

Student and Faculty Cost Analysis

Student Cost Analysis

The following table shows the average hourly pay of a major over twelve years of service from 2010-2014. This is done to show historical consideration of the cost associated with student participation.

Table 4. Student Cost per Hour Analysis

| | 2010 | 2011 | 2012 | 2013 | 2014 | 5-year Average |
|-----------------------|---------------------------|------------------------|---------------------------------------|-------------------------------|------------------------|-------------------------------|
| per month | \$6,540.00 | \$6,632.00 | \$6,738.00 | \$6,852.00 | \$6,921.00 | \$ 6,736.60 |
| per year | \$ 78,480.00 | \$ 79,584.00 | \$ 80,856.00 | \$ 82,224.00 | \$ 83,052.00 | \$ 80,839.20 |
| per day | \$ 300.69 | \$ 304.92 | \$ 309.79 | \$ 315.03 | \$ 318.21 | \$ 309.73 |
| per hour | \$ 37.59 | \$ 38.11 | \$ 38.72 | \$ 39.38 | \$ 39.78 | \$ 38.72 |
| | | Major with | 12 years of service | e based on 24/7 p | ay | |
| | 2010 | Major with | 12 years of service 2012 | e based on 24/7 p 2013 | ay 2014 | 5-year Average |
| per month | 2010 \$6,540.00 | • | , , , , , , , , , , , , , , , , , , , | · · | • | 5-year Average \$ 6,736.60 |
| per month per year | | 2011 | 2012 | 2013 | 2014 | |
| • | \$6,540.00 | 2011 \$6,632.00 | 2012 \$6,738.00 | 2013 \$6,852.00 | 2014 \$6,921.00 | . , |

Source: Defense Finance and Accounting Service (DFAS), "Military Pay Table 2010," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:cade00d2-3305-4e96-8b1e-c91b30e5647b/MilPayTable2010.pdf; DFAS, "Military Pay Table 2011," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:85e204fb-b643-4fa0-8592-8adbd8aea8c7/MilPayTable2011.pdf; DFAS, "Military Pay Table 2012," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:db53ae5b-5afe-41aa-8ebb-6878e6cb4aab/MilPayTable2012.pdf; DFAS, "Military Pay Table 2013," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:6bd80437-9b54-4909-8c89-e70cfd1deb44/MilPayTable2013_1.pdf; DFAS, "Military Pay Table 2014," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:0c670a09-e430-4c86-b85b-7cd9ed39ebdc/2014%20Web%20Pay%20Table%20w%20updated%20CSP%202.pdf.

Instructor Cost Analysis

The following data table shows the average hourly pay of an instructor from 2010-2014. This is done to show historical consideration of the cost associated with instruction delivery.

Table 5. Faculty Cost per Hour Analysis

| | 2010 | 2011 | 2012 | 2012 | 2014 | C A |
|-----------|---------------------------|------------------------|---------------------------|----------------------------------|----------------------|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 5-year Average |
| per month | \$7,959.00 | \$8,070.30 | \$8,199.30 | \$8,338.80 | 8,422.20 | \$8,197.92 |
| per year | \$95,508.00 | \$96,843.60 | \$98,391.60 | \$100,065.60 | \$101,066.40 | \$98,375.04 |
| per day | \$365.93 | \$371.05 | \$376.98 | \$383.39 | \$387.23 | \$376.92 |
| per hour | \$45.74 | \$46.38 | \$47.12 | \$47.92 | \$48.40 | \$47.11 |
| | | | | | | |
| | | <u> </u> | <u> </u> | pased on 24/7 pay | | |
| | 2010 | Instructor w, | / starting salary b | pased on 24/7 pay 2013 | 2014 | 5-year Average |
| per month | 2010 \$7,959.00 | <u> </u> | <u> </u> | · · · · | | 5-year Average \$8,197.92 |
| | | 2011 | 2012 | 2013 | 2014 | <u>, </u> |
| per month | \$7,959.00 | 2011 \$8,070.30 | 2012 \$8,199.30 | 2013 \$8,338.80 | 2014 8,422.20 | \$8,197.92 |

Source: Defense Finance and Accounting Service (DFAS), "Military Pay Table 2010," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:cade00d2-3305-4e96-8b1e-c91b30e5647b/MilPayTable2010.pdf; DFAS, "Military Pay Table 2011," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:85e204fb-b643-4fa0-8592-8adbd8aea8c7/MilPayTable2011.pdf; DFAS, "Military Pay Table 2012," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:db53ae5b-5afe-41aa-8ebb-6878e6cb4aab/MilPayTable2012.pdf; DFAS, "Military Pay Table 2013," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:6bd80437-9b54-4909-8c89-e70cfd1deb44/MilPayTable2013_1.pdf; DFAS, "Military Pay Table 2014," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:0c670a09-e430-4c86-b85b-7cd9ed39ebdc/2014%20Web%20Pay%20Table%20w%20updated%20CSP%202.pdf.

Student Composition of Courses

The following data table shows the number of students and instructors assigned to each course of instruction, by course with the associated demographics. ⁶⁰ For several of the courses, more than one instructor was present for the sessions. For simplicity, it is assumed that only one instructor was teaching at any given time, and the cost will ultimately be calculated based on this assumption.

⁶⁰ This table was built with data received from the U.S. Student Division at CGSC and the branch advocates at CGSOC.

Table 6. Student Cost to Conduct P900 Courses

| | Major with | 12 years servi | ce based on 8-hour day, | 5 days per week (261 days/2 | 088 hours) |
|--------|------------|----------------|----------------------------|-----------------------------|----------------|
| Course | Hours | \$/hour | Cost per Student | Number of Students | Cost per Class |
| P910 | 64 | \$38.72 | \$2,477.83 | 69 | \$170,970.26 |
| P920 | 15 | \$38.72 | \$580.74 | 1104 | \$641,138.48 |
| P930 | 32 | \$38.72 | \$1,238.91 | 297 | \$367,957.74 |
| P931 | 12 | \$38.72 | \$464.59 | 521 | \$242,053.01 |
| P934 | 12 | \$38.72 | \$464.59 | 229 | \$106,391.82 |
| P940 | 40 | \$38.72 | \$1,548.64 | 71 | \$109,953.70 |
| P941 | 40 | \$38.72 | \$1,548.64 | 54 | \$83,626.76 |
| P942 | 30 | \$38.72 | \$1,161.48 | 55 | \$63,881.55 |
| P943 | 24 | \$38.72 | \$929.19 | 56 | \$52,034.43 |
| P990 | 60 | \$38.72 | \$2,322.97 | 64 | \$148,669.79 |
| Total | 329 | | | 2520 | \$1,986,677.54 |
| | | M | ajor with 12 years service | e based on 24/7 | |
| Course | Hours | \$/hour | Cost per Student | Number of Students | Cost per Class |
| P910 | 64 | \$9.23 | \$590.61 | 69 | \$40,751.82 |
| P920 | 15 | \$9.23 | \$138.42 | 1104 | \$152,819.31 |
| P930 | 32 | \$9.23 | \$295.30 | 297 | \$87,705.00 |
| P931 | 12 | \$9.23 | \$110.74 | 521 | \$57,694.83 |
| P934 | 12 | \$9.23 | \$110.74 | 229 | \$25,359.15 |
| P940 | 40 | \$9.23 | \$369.13 | 71 | \$26,208.14 |
| P941 | 40 | \$9.23 | \$369.13 | 54 | \$19,932.95 |
| P942 | 30 | \$9.23 | \$276.85 | 55 | \$15,226.56 |
| P943 | 24 | \$9.23 | \$221.48 | 56 | \$12,402.73 |
| P990 | 60 | \$9.23 | \$553.69 | 64 | \$35,436.36 |
| Total | 329 | | | 2520 | \$473,536.84 |

Source: Defense Finance and Accounting Service (DFAS), "Military Pay Table 2010," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:cade00d2-3305-4e96-8b1e-c91b30e5647b/MilPayTable2010.pdf; DFAS, "Military Pay Table 2011," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:85e204fb-b643-4fa0-8592-8adbd8aea8c7/MilPayTable2011.pdf; DFAS, "Military Pay Table 2012," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:db53ae5b-5afe-41aa-8ebb-6878e6cb4aab/MilPayTable2012.pdf; DFAS, "Military Pay Table 2013," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:6bd80437-9b54-4909-8c89-e70cfd1deb44/MilPayTable2013_1.pdf; DFAS, "Military Pay Table 2014," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:0c670a09-e430-4c86-b85b-7cd9ed39ebdc/2014%20Web%20Pay%20Table%20w%20updated%20CSP%202.pdf.

Instructor Composition of Courses

The researcher chose to only show the cost analysis for the P910, P920, P930, and P940 courses, as these are the only P900 courses owned by CGSC. The remaining P900 courses were sponsored and funded by that functional area's branch. The exception to these cases is the P990 course, which was a pilot course and not considered in this study.

Table 7. Instructor Cost to Conduct P900 Courses

| ı | nstructor Lt | Col w/ 20 yea | rs service on 8- hour day, | 5 days per week (261 days/20 | 88 hours) |
|----------------|--------------|------------------------------------|---------------------------------|--|------------------------------|
| Course | Hours | \$/hour | Cost per Instructor | Number of Instructors | Cost per Class |
| P910 | 64 | \$47.11 | \$3,015.33 | 6 | \$18,091.96 |
| P920 | 15 | \$47.11 | \$706.72 | 0 | \$- |
| P930 | 32 | \$47.11 | \$1,507.66 | 19 | \$28,645.61 |
| P940 | 40 | \$47.11 | \$1,884.58 | 4 | \$7,538.32 |
| Total | 151 | | | 25 | \$46,737.57 |
| | | | | | |
| | | Instruct | or LtCol w/ 20 years servi | ice based on 24/7 pay | |
| Course | Hours | Instruct \$/hour | or LtCol w/ 20 years servi | ice based on 24/7 pay Number of Instructors | Cost per Class |
| Course P910 | Hours 64 | | • | • • • | Cost per Class \$3,543.64 |
| | | \$/hour | Cost per Instructor | Number of Instructors | |
| P910 | 64 | \$/hour \$9.23 | Cost per Instructor \$590.61 | Number of Instructors | \$3,543.64 |
| P910 P920 | 64 15 | \$/hour \$9.23 \$9.23 | \$590.61 \$138.42 | Number of Instructors 6 0 | \$3,543.64 \$- |

Source: Defense Finance and Accounting Service (DFAS), "Military Pay Table 2010," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:cade00d2-3305-4e96-8b1e-c91b30e5647b/MilPayTable2010.pdf; DFAS, "Military Pay Table 2011," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:85e204fb-b643-4fa0-8592-8adbd8aea8c7/MilPayTable2011.pdf; DFAS, "Military Pay Table 2012," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:db53ae5b-5afe-41aa-8ebb-6878e6cb4aab/MilPayTable2012.pdf; DFAS, "Military Pay Table 2013," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:6bd80437-9b54-4909-8c89-e70cfd1deb44/MilPayTable2013_1.pdf; DFAS, "Military Pay Table 2014," accessed November 20, 2014, http://www.dfas.mil/dam/jcr:0c670a09-e430-4c86-b85b-7cd9ed39ebdc/2014%20Web%20Pay%20Table%20w%20updated%20CSP%202.pdf.

Total Costs

The researcher feels that the most accurate portrayal of cost is shown in the five-day per week cost analysis. This is due to the fact that all the students are expected to conduct physical training, sleep, and hygiene outside of school hours, and also that most cost assessments for personnel are based on the time the individual is actually at their appointed place of duty. The overall average costs associated with conducting the P900 blocks of instruction for the student body and faculty are as follows:

Total dollars in pay for conducting the P900 curriculum: \$2,033,415.11.

Total man-hours spent conducting the P900 curriculum: 832,855.

Summary of Findings

The researcher found that, statistically, the P900 curriculum does not better prepare the student for the academic year. The researcher also found that the course cost in pay alone is well over \$2 million. Although the students and faculty would be paid their salary regardless of their activity, there are other costs not discussed here that show a potential waste of government resources. The researcher concedes that the salary for both the students and faculty is a sunk cost. However, based on the data, the researcher feels that the time the students and faculty are spending on the preparatory curriculum could be better used in other endeavors.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Despite many hours combing through the records and history of CGSC, one could begin to think that the preparatory course presented to the student body is something created long ago and maintained purely out of institutional lore. Lore, as explained by Simon Bronner, is a kind of knowledge or intangible heritage handed down by generations. He further goes on to discuss the *traditio*, or the passing down of traditions, where one generation gives something they see as valuable to the next generation, but is received with a different perspective through every generation. The P900 curriculum at CGSOC has been taught every year since at least 1985. The origins of the course, however, are elusive and the course seems to continue based more on lore than necessity. This does not mean that the courses were not or are not currently necessary and useful. It simply shows the tendency for organizations to continue courses of action without understanding the original purpose. This is especially true when there is a lack of assessment of the course of action over time.

Student and Faculty Responses

Preparatory course student attitudes seem to be a key indicator of the effectiveness of a preparatory course. Following AY 2013, CGSC conducted a survey for

⁶¹ Simon J. Bronner, *Explaining Traditions: Folk Behavior in Modern Culture* (Lexington: The University of Kentucky Press, 2011), 28.

⁶² Ibid., 27.

P931 following the completion of C500.⁶³ Although the data was inconclusive, it showed that CGSC does indeed value the feedback of its students enough to research the effectiveness of their own courses. Unfortunately, this is the only example of any feedback or attempt at assessing the effectiveness of any of the preparatory courses since the preparatory courses began in 1985.⁶⁴ The student and faculty comments show that the information presented in the curriculum is not only valued, but also necessary for the development of field grade officers. Unfortunately, the statistics clearly show that the delivery method for the information is not well received by the students, nor is it deemed effective by the students or the faculty.

Course Oversight

The P900 curriculum is unique because it not synchronized in a single department like the other areas of the graded curriculum. Some courses of the P900 curriculum of CGSC, strangely, are not designed to help the ILE resident students prepare for the academic year requirements, nor is it designed to prepare the student for their duty assignment(s) after graduation. The preparatory courses required of all the students focus predominantly on the material that is eventually covered in the Core Curriculum and the AOC. The time in the preparatory course gives some of the students a chance to interact and network with Sister Services and International officers, however, the entire student body does not share this time. The other major reason for the lack of synchronization is that only three of the P900 courses are required by the Army: P910, P930, and P940.

⁶³ Department of Tactics, U.S. Army Comand and General Staff College, "P931: CGSOC Preparatory Course Advance Sheet."

⁶⁴ ATRRS, "Information for Course 2G-F67X."

Although the P920 online course shares the Army Training Requirements and Resourcing System course code with P930, there is no requirement from the Army to conduct the online preparatory course. This means that the online course is not officially resourced and is possibly detracting from other requirements in the school by conducting it.

The argument can be posed that synchronization across the various P900 courses of instruction is not necessary. This argument shows similarity to the concept of white space training for company commanders. 65 When a battalion has time available outside of higher-level training exercises, there is not necessarily a need to synchronize the training activities that the company commanders are conducting within a battalion. However, the prudent company commander would likely be filling the white space ⁶⁶ on the training calendar with training to prepare his or her troops for the next battalion-level event. In addition, the battalion, while not dictating the training required, would certainly have awareness and oversight for the training the companies and platoons are conducting. It is in this facet that CGSC seems to fall short on the P900. The individual instructors and departments create plans of instruction for their students to fulfill the academic objectives of their respective P900 block of instruction. The school, however, has little battalion oversight of the process. The P900 companies are conducting white space training based on the guidance of the branches, even though they believe they are preparing for the next battalion-level event: Common Core and AOC. In the case of

⁶⁵ This citation is to reference a conversation with Major George Morris, U.S. Army. Major Morris is an infantry officer who has commanded three companies, totaling over 50 months in command..

⁶⁶ White space is a term used in the military to denote space on a training calendar that is not filled by higher headquarters.

CGSC, there is no battalion. The individual P900 courses are chaired by individuals throughout the college, but there is no one single director like the other departments (tactics, leadership, etc.) that has to coordinate efforts across the student body. ⁶⁷ This organization of P900 eliminates one vital facet of mission command: commander's intent. The individual instructors and course leads use disciplined initiative within the educational goals of the curriculum, but it seems odd to not have a single entity responsible for the conduct of over 800,000 man-hours of instruction worth almost \$2 million in pay alone for students and faculty.

Recommendations for Updates to the Preparatory Curriculum

The researcher recommends several actions to the college with regard to the preparatory curriculum. First, do away with the P920 online student preparatory curriculum. The course is not required by the Army, and there is no clear benefit to the students. Based on the feedback from the students, P920 and associated exams administered through Blackboard merely test the student's ability to search documents without truly learning or retaining any information. Second, the college needs to do away with the branch specific preparatory courses. The other Sister Service colleges do not require their officers to attend specialty-specific courses prior to the execution of the academic year. The branches can consolidate tools and information for the students to use within their staff groups and disseminate them at Branch Day. This will prevent the unnecessary expenditure of funds for branches to travel to CGSC to teach students

⁶⁷ This information was received from the college administrative staff when reviewing demographics and participation in the P900 courses.

courses that are not synchronized with the college's curriculum. If none of these courses are eliminated then they, at a minimum, should undergo the same review through the Accountable Instruction System as the rest of the curriculum. Placing the curriculum into the Accountable Instruction System moves the responsibility for oversight from the departments where it is now, to the Director of the Command and General Staff School, and ultimately to the Deputy Commandant.

Recommendations for CGSC

The researcher recommends that CGSC institute an entrance exam for Army majors attending CGSOC. The online preparatory course that all students complete is designed to give the student a self-assessment of their knowledge of Army doctrine, tactics, and the Military Decision Making Process. Since the Army has returned to board selection, part of the requirement to attend the school should be to show proficiency in the basic knowledge required of a field grade officer. The pre-test would remove students from the class prior to their arrival, and allow the Army another vehicle by which to manage talent within their ranks.

The study showed no statistical significance between familiarity with the material and feelings of preparedness. This needs to be further reviewed and studied since the courses were designed to prepare the students for the academic year and engagement in their staff groups. Having no link between prior knowledge and overall preparedness leaves the researcher to question whether or not the courses are synchronized with the Common Core curriculum. This could be further researched by surveying students from previous academic years as well.

Recommendations for Further Study

The researcher recommends several issues for further study. The first, and most important issue for study, is the effectiveness of preparatory courses and indoctrinations. The body of knowledge on this subject was extremely limited. The majority of the research is based on long-term study, such as college preparatory curriculum in high school curriculum development.

BIBLIOGRAPHY

Books

- Anderson, Clinton L. "Educating the United States Army." In *The Educating of Armies*, edited by Michael D. Stephens, 39-74. New York: St. Martin's Press, 1989.
- Army Service Schools. U.S.A. and C & G.S.S. Annual Reports of the Commandant, 1912-1916. Fort Leavenworth, KS: Army Service Schools Press, 1912.
- Bronner, Simon J. *Explaining Traditions: Folk Behavior in Modern Culture*. Lexington: The University Press of Kentucky, 2011.
- Ellwood, David, and Thomas J. Kane. "Who is Getting a College Education? Family Background and the Growing Gaps in Enrollment." In *Securing the Future: Investing in Children from Birth to College*, edited by Sheldon Danziger and Jane Waldfogel, 284. New York: Russell Sage Foundation, 2000.
- Schifferle, Peter J. America's School for War: Fort Leavenworth, Officer Education, and Victory in World War II. Lawrence: University of Kansas Press, 2010.
- Turabian, Kate L. A Manual for Writers of Research Papers, Theses, and Dissertations; 8th ed. Chicago, IL: The University of Chicago Press, 2013.

Government Documents

- Chairman, Joint Chiefs of Staff. Chairman Joint Chiefs of Staff Instruction 1800.01D, Officer Professional Military Education Policy. Washington, DC: Joint Chiefs of Staff, September 5, 2012.
- Historical Office of the Secretary of Defense. Goldwater-Nichols Department of Defense Reorganization Act of 1986. Public Law 99-433, 99th Congress, October 1986. Accessed June 2, 2015. http://history.defense.gov/Portals/70/Documents/dod_reforms/Goldwater-NicholsDoDReordAct1986.pdf.
- Marine Corps University. *Student Handbook*. U.S. Marine Corps. October 31, 2013. Accessed February 3, 2015. https://www.mcu.usmc.mil/MCU%20Command%20 Policies/MCU%20Student%20Handbook.pdf.
- Partin, John W., and W. Glenn Robertson. *U.S. Army Combined Arms Center 1981 Annual Historical Review.* Fort Leavenwoth, KS: U.S. Army Combined Arms Center, 1981.

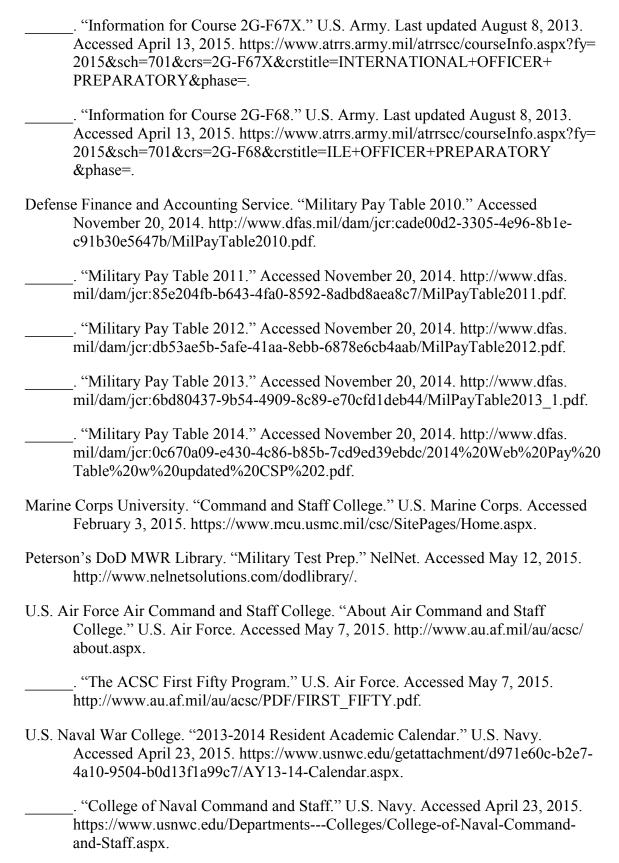
- U.S. Army Combined Arms Center Education. Bulletin 40, *Research Review and Approval*. Fort Leavenworth, KS: U.S. Army Combined Arms Center, April 22, 2015.
- U.S. Army Combined Arms Center History Office. U.S. Army Combined Arms Center 1986 Annual Historical Review. Fort Leavenworth, KS: U.S. Army Combined Arms Center, 1986.
- _____. *U.S. Army Combined Arms Center 1989 Annual Historical Review*. Fort Leavenworth, KS: U.S. Army Combined Arms Center, 1989.
- U.S. Army Command and General Staff College. CGSC Circular 350-1, *US Army Combined Arms Center*, U.S. Army Combined Arms Center, January 18, 2012. Accessed February 3, 2015. https://combinedarmscenter.army.mil/orgs/lde/staff/sgs/Policy/20120118_CGSC_Course%20Catalog_Circular_350-1.pdf.
- U.S. Army Training and Doctrine Command. TRADOC Pamphlet 525-5, Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the EARLY Twenty-First Century. Fort Monroe, VA: U.S. Army Training and Doctrine Command, 1994.
- U.S. Army Training and Doctrine Command, Military History Office. *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command.*Fort Monroe, VA: U.S. Army Training and Doctrine Command, 1998.

Periodicals

- American Board of Surgery, American College of Surgeons, Association of Program Directors in Surgery. "Statement on Surgical Preresidency Preparatory." *The American Surgeon* 80 (November 2014): 1085-1086.
- Wilkinson, Tom M., and Tim J. Wilkinson. "Preparation Courses for a Medical Admissions Test: Effectiveness Contrasts with Opinion." *Medical Education*, no. 47 (2013): 417-424.
- Yaeger, John W. "The Origins of Joint Professional Military Education." *Joint Force Quarterly*, no. 37 (2005): 74-82

Online Sources

Army Training Requirements and Resources System. "Information for Course 2E-F250." U.S. Army. Last updated August 8, 2013. Accessed April 23, 2015. https://www.atrrs.army.mil/atrrscc/courseInfo.aspx?fy=2015&sch=701&crs=2E-F250&crstitle=SPECIAL+OPERATIONS+FORCES+ILE+PREP&phase=.



Papers/Reports

- Belley, Philippe, and Lance Lochner. *The Changing Role of Family Income and Ability in Determining Educational Achievement*. Ontario, Canada: University of Western Ontario, 2007.
- Godfrin, Peter F., Jr. "Preparing Field Grade Officers for Joint Staff Assignments."

 Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, April 2011.
- Henry, Gary T., Kristina M. Patterson, Shanyce L. Campbell, and Pan Yi. *UNC Teacher Quality Research: 2013 Teacher Preparation Program Effectiveness Report.*Chapel Hill: University of North Carolina College of Arts and Sciences, May 2013. Accessed May 27, 2015. http://publicpolicy.unc.edu/files/2013/11/UNC_TQR_OverallProgramReport_Final.pdf.
- Hester, Paul V. "Does CGSC Prepare the Air Force Officer for His Follow On Assignment?" Master's thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS, June 1980.
- Lane, Randall C. "Learning Without Boundaries: The Future of Advanced Military Education." Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, 1997.

Other Sources

|] | nent of Tactics, U.S. Army Comand and General Staff College. "P931: CGSOC Preparatory Course Advance Sheet." U.S. Army Command and General Staff College, Fort Leavenworth, KS, June 2014. |
|---|--|
| | . "DTAC Engineer Branch Planning Class 16." Advance Sheet for P942, Engineer Officer Preparatory Course. U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2015. |
| | . "A340-Signal Officer Preparatory Course Advance Sheet." U.S. Army Command and General Staff College, Fort Leavenworth, KS, March 2010. |
| | . "P943 Signal Officer Preparatory Course Welcome Letter." U.S. Army Command and General Staff College, Fort Leavenworth, KS, June 11, 2013. |
|] | Corps University, Command and Staff College. "AY 15 Course Overview." PowerPoint briefing presented to Command Staff College students, Quantico, VA, July 7, 2014. |
| | "Command and Staff College AY 14-15 Curriculum." PowerPoint briefing presented to Command Staff College students, Quantico, VA, July 31, 2014. |

